

# DEPARTMENT OF ENVIRONMENTAL CONSERVATION

## AIR QUALITY CONSTRUCTION PERMIT

**Permit No.: 009CP01**

Application Number: X-194

Final: November 28, 2003

The Department of Environmental Conservation (Department), under the authority of AS 46.14 and 18 AAC 50, issues Construction Permit No. 009CP01 to the Permittee: **Union Oil Company of California.**

This permit satisfies the obligation of the owner and operator to obtain a construction permit as set out in AS 46.14.130.

As required by AS 46.14.120(c), the Permittee shall comply with the terms and conditions of this construction permit.

[18 AAC 50.320(b), 1/18/97]

---

John F. Kuterbach, Manager  
Air Permits Program

---

## Table of Contents

List of Abbreviations Used in this Permit .....	3
Section 1: Identification.....	4
Section 2: Emission Information and Classification.....	5
Section 3: Source Inventory and Description .....	6
Section 4: State Emission Standards .....	7
Section 5: Permit Documentation.....	8

## List of Abbreviations Used in this Permit

AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
AS	Alaska Statutes
ASTM	American Society of Testing and Materials
bhp	brake horsepower or boiler horsepower <sup>1</sup>
CEMS	Continuous Emission Monitoring System
C.F.R.	Code of Federal Regulations
COMS	Continuous Opacity Monitoring System
dscf	Dry standard cubic feet
EPA	US Environmental Protection Agency
gr/dscf	grain per dry standard cubic feet (1 pound = 7000 grains)
GPH	gallons per hour
HHV	Higher heating value
ID	Source Identification Number
kW	kilowatts
MACT	Maximum Achievable Control Technology
Mlb	thousand pounds
MMBtu	Million British Thermal Units
NAICS	North American Industry Classification System
NESHAPs	Federal National Emission Standards for Hazardous Air Pollutants [as defined in 40 CFR 61]
NSPS	Federal New Source Performance Standards [as defined in 40 CFR 60]
ppm	Parts per million
ppmv	Parts per million volume
PS	Performance specification
PSD	Prevention of Significant Deterioration
RM	Reference Method
SIC	Standard Industrial Classification
TPH	Tons per hour
TPY	Tons per year
Wt%	weight percent

## Pollutants

CO	Carbon Monoxide
HAPS	Hazardous Air Pollutants [as defined in AS 46.14.990(14)]
H <sub>2</sub> S	Hydrogen Sulfide
NO <sub>x</sub>	Oxides of Nitrogen
PM <sub>10</sub>	Particulate Matter [as defined in 18 AAC 50.990(70)]
SO <sub>2</sub>	Sulfur Dioxide
VOC	Volatile Organic Compound [as defined in 18 AAC 50.990(103)]

<sup>1</sup> 1 boiler horsepower = 33,472 Btu-fuel per hp-hr divided by the boiler's efficiency. Approximately 7000 Btu-fuel per bhp-hr is required for an average diesel IC engines.

## **Section 1 - Identification**

### **Names and Addresses**

Permittee: Union Oil Company of California  
P.O. Box 196247  
Anchorage, AK 99519-6247

Facility: Steelhead Platform

Location: 60° 49' 50" North; 151° 36' 00" West

Physical Address: Upper Cook Inlet, Alaska

Owner: Union Oil Company of California (Operator),  
Marathon Oil Company, and Forest Oil Corporation

Operator: Union Oil Company of California  
P.O. Box 196247  
Anchorage, AK 99519-6247

Permittee's Responsible Official: Dale Haines, Unocal Alaska Operations Manager  
PO Box 196247  
Anchorage, AK 99519-6247  
Phone (907) 263-7951 Fax (907) 263-7874

Designated Agent: CT Corporation System  
801 West 10th Street, Suite 300  
Juneau, Alaska 99801  
Phone (907)586-3340

Facility and Building Contact: Gary Ross or Johnny Santiago, Foreman  
Facility Site Manager  
(907) 776-6863

Fee Contact: David Bailey  
Union Oil Company of California  
P.O. Box 196247  
Anchorage, AK 99519-6247  
(907) 263-7967 Fax (907) 263-7901

SIC Code of the Facility: 1311 – Crude Petroleum and Natural Gas Production

NAICS Code: 211111

[18 AAC 50.350(b), 1/18/97]

## ***Section 2 - Emission Information and Classification***

### **1. Emissions of Regulated Air Contaminants, as provided in Permittee's application:**

Oxides of Nitrogen (NO<sub>x</sub>), Sulfur Dioxide (SO<sub>2</sub>), Carbon Monoxide (CO), Particulate Matter, and Volatile Organic Compounds (VOC).

### **2. Construction Permit Classifications:**

The C-14 Compressor Installation Project requires a construction permit because:

- a. The facility is classified as:
  - i. an Ambient Air Quality Facility under 18 AAC 50.300(b)(2), as the facility contains sources with a rated capacity of 100 MMBtu/hr or more, and
  - ii. a Prevention of Significant Deterioration (PSD) Major Facility under 18 AAC 50.300(c)(1), as the facility has a potential to emit more than 250 tons per year of NO<sub>x</sub> and CO; and
- b. The project is classified as a modification listed in 18 AAC 50.300(h)(2), as there will be an increase in actual emissions.

[18 AAC 50.320(a)(2), 1/18/97]

### **Section 3 - Source Inventory and Description**

1. **Authorization and Notification Requirements.** The Permittee is authorized to modify and operate the facility in accordance with the construction permit application as may be currently applicable. This permit authorizes the Permittee to install a fuel gas fired engine rated at 1,151 hp for the gas compressor.
2. **Serial Number.** Within 30 days after initial start-up, provide the serial number of Source No. H-C-14 to the Department's Air Permits Program Compliance Assurance Office, 610 University Avenue, Fairbanks, Alaska 99708.

[AS 46.14.020(b)]

The source listed below has specific monitoring, recordkeeping, or reporting conditions in this construction permit. The source description and rating are given for identification purposes only. The facility equipment inventory prior to the project is listed in Section 3, Table 1-Source Inventory in the Title V Operating Permit No. 009TVP01 Revision 1.

**Table 1: Construction Permit Source Inventory**

<b>Tag No.</b>	<b>Source Name</b>	<b>Source Description</b>	<b>Fuel</b>	<b>Maximum Nominal Rating/Size</b>
H-C-14	Caterpillar G3516 TALE	C-14 Gas Compressor	Fuel-gas	1,151 hp

## **Section 4 - State Emission Standards**

**Opacity, Particulate Matter and Sulfur Dioxide.** For the Gas compressor engine, Tag No. H-C-14, comply with state emission standards for fuel burning equipment as described below:

- 4. Visible Emissions.** The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from Source C-14 to reduce visibility through the exhaust effluent by any of the following:

- a. more than 20 percent for a total of more than three minutes in any one hour<sup>2</sup>,
- b. more than 20 percent averaged over any six consecutive minutes.

- 4.1 Monitor, record and report H-C-14 visible emissions in accordance with conditions 58.2 and 58.3 of the Operating Permit No. 009TVP01.

[18AAC 50.320(a)(1), 8/15/02]  
[18AAC 50.320(a)(2)(A-E), 8/15/02]

- 5. Particulate Matter.** The Permittee shall not cause or allow particulate matter emitted from Source C-14 to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

- 5.1 Monitor, record and report H-C-14 according to conditions 58.2 and 58.3 of the Operating Permit No. 009TVP01.

[18 AAC 50.055(b)(1), 8/15/02]  
[18AAC 50.320(a)(2), 8/15/02]  
[18AAC 50.320(a)(2)(A-E), 8/15/02]

- 6. Sulfur Compound Emissions.** In accordance with 18 AAC 50.055(c), the Permittee shall not cause or allow sulfur compound emissions, expressed as SO<sub>2</sub>, from Source C-14 to exceed 500 ppmv averaged over three hours.

- 6.1 Monitor, record and report according to conditions 5.5, 5.6, and 5.7 of the Operating Permit No. 009TVP01.

[18 AAC 50.055(c), 8/15/02]  
[18AAC 50.320(a)(2), 8/15/02]  
[18AAC 50.320(a)(2)(A-E), 8/15/02]

---

<sup>2</sup> For purposes of this permit, the "more than three minutes in any one hour" criterion in this condition will no longer be effective when the Air Quality Control (18 AAC 50) regulation package effective 5/3/02 is adopted by the U.S. EPA. The six-minute average standard is enforceable only by the State for Source ID H-C-14 until 18 AAC 50.055(a)(1), dated May 3, 2002 is approved by EPA into the SIP at which time this standard becomes federally enforceable.

## ***Section 5 - Permit Documentation***

September 12, 2003 Letter from Dale Haines, Unocal, to Jim Baumgartner, ADEC, with an Application for an Air Quality Control Construction Permit.

October 16, 2003 ADEC preliminary permit decision.